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# SCIENCE

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## EXPERIMENTAL AND CHEMICAL STUDIES OF THE BLOOD WITH AN APPEAL FOR MORE EXTENDED CHEMICAL TRAINING FOR THE BIOLOGICAL AND MEDICAL INVESTIGATOR<sup>1</sup>

BEFORE beginning my address let me say that I feel it to be a very great honor to have been asked to deliver the first Mellon Lecture under the auspices of the Society for Biological Research of this university. The establishment of a lectureship of this character is a great encouragement to men of science. It affords additional opportunity to bring to the attention of a wider public the recent results of scientific investigation as well as to emphasize again a truth which can not be too often repeated, that science constitutes a sure and lasting part of the intellectual treasure which mankind possesses.<sup>2</sup>

I have ventured to take as the subject of my address some recent experimental and chemical studies of the blood. In order to give my subject a proper setting I must, first, refer briefly to the history of blood-letting, and to make clear its relation to pressing medical problems, I shall in the hour discuss the interaction of the blood and the organs of internal secretion.

The overwhelming significance of the blood to all people in all times is shown in folk sayings, in tradition and in literature. The expressions, "the life of flesh is in the blood," "tainted blood," "blood will tell," "blood oath," "blood brother," all suggest how nearly blood has been held to be synon-

<sup>1</sup> The first Mellon lecture, delivered in the Assembly Hall of the Mellon Institute, Pittsburgh, on February 27, 1915.

<sup>2</sup> Ostwald,